

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,417,136 B1  
APPLICATION NO. : 09/701536  
DATED : August 26, 2008  
INVENTOR(S) : Gwong-Jen J. Chang

Page 1 of 10

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, item [56]: In Other Publications:

On Page 1, under Lin *et al.*: “Elicitis” should read --Elicits--

On Page 1, under Wang *et al.*: “*Virology* 288:” should read --*Virology* 228--

On Page 3, Column 1, line 32: “NS<sub>1</sub>” should read --NS1--

On Page 3, Column 1, line 33: “Overwriting” should read --Overwintering--

On Page 3, Column 2, line 22: “submit” should read --subunit--

Column 1, line 26: “*yellow fever virus. JEV,*” should read --*yellow fever virus, JEV,*--

Column 1, line 29: “others Altogether” should read --*others.* Altogether--

Column 1, line 30: “(1998))” should read --(1998)).--

Column 1, line 41: “virions M” should read --virions. M--

Column 1, line 62: “(1990))” should read --(1990)).--

Column 2, line 7: “(1985))” should read --(1985)).--

Column 2, line 13: “elderly; in” should read --elderly, in--

Column 2, line 39: “viremia” should read --viremia.--

Column 2, line 42: “(Tsai *et al.*) Whole” should read --(Tsai *et al.*). Whole--

Column 2, line 43: “do not have” should read --do have--

Column 2, line 44: “advantages The” should read --advantages. The--

Column 2, line 45: “host Such” should read --host. Such--

Column 2, line 46: “expensive Furthermore,” should read --expensive. Furthermore,--

Column 2, line 54: “disease” should read --disease.--

Column 2, line 56: “WO 93/06214 The” should read --WO 93/06214. The--

Column 2, line 60: “*JEV*” should read --*JEV*.--

Column 2, line 63: “glycoprotien” should read --glycoprotein--

Column 3, line 3: “vaccine” should read --vaccine.--

Column 3, line 7: “*JEV* Recombinant” should read --*JEV*. Recombinant--

Column 3, line 13: “NS2B These” should read --NS2B. These--

Column 3, line 26: “(1992)) Dmitriev et al.” should read --(1992)). Dmitiriev *et al.*--

Column 3, line 31: “fever Zhao” should read --fever. Zhao--

Column 3, line 49: “(1989)) Also” should read --(1989)). Also--

Column 3, line 61: “(1997)) Plasmid” should read --(1997)). Plasmid--

Column 3, line 63: “immunization In” should read --immunization. In--

Column 4, line 4: “(Kochel et al.) Challenge” should read --(Kochel *et al.*). Challenge)--

Column 4, line 23: “*YFV* Vaccine” should read --*YFV*. Vaccine--

Column 4, line 26: “alluded to” should read --alluded to.--

Column 4, line 33: “immunity There” should read --immunity. There--

Column 4, line 47: “*St. Lous*” should read --*St. Louis*--

Column 4, line 49: “(*JEV*) In important” should read --(*JEV*). In important--

Column 4, lines 50-51: “both In” should read --both. In--

Column 4, line 53: “antigens In” should read --antigens. In--

Column 5, lines 2-3: “anti-gens” should read --anti-gens.--

Column 5, line 11: “carrier In” should read --carrier. In--

Column 5, lines 13-14: “*JEV* Fur-thermore,” should read --*JEV*. Fur-thermore,--

Column 5, line 25: “terminator” should read --terminator.--

Column 5, lines 52-53: “promoter Further-more,” should read --promoter. Further-more,--

Column 5, line 66: “protecting” should read --protective--

Column 6, line 4: “inventory” should read --inventor--

Column 6, line 5: “acid is conferring” should read --acid in conferring--

Column 6, line 35: “PCIBamp” should read --pCIBamp--

Column 6, line 53: “pair) The” should read --pair). The--

Column 6, line 56: “ascetic” should read --ascitic--

Column 6, line 58: “ascetic fluid)” should read --ascitic fluid).--

Column 7, line 4: “*St. Lous*” should read --*St. Louis*--

Column 7, line 15: “HIAF Viral” should read --HIAF. Viral--

Column 7, line 17: “respectively” should read --respectively.--

Column 7, line 33: “molecules” should read --molecules.--

Column 7, line 45: “TU Although” should read --TU. Although--

Column 8, line 8: “TU In particular” should read --TU. In particular--

Column 8, line 10: “TU In particular” should read --TU. In particular--

Column 8, line 12: “cell In particular” should read --cell. In particular--

Column 8, line 31: “subject As” should read --subject. As--

Column 8, line 41: “organisms” should read --organisms.--

Column 8, line 45: “graph As” should read --graph. As--

Column 8, line 47: “TU The” should read --TU. The--

Column 8, line 63: “reference)” should read --reference).--

Column 9, line 1: “*St. Lous*” should read --*St. Louis*--

Column 9, line 4: “molecules They” should read --molecules. They--

Column 9, line 7: “agent Modifications” should read --agent. Modifications--

Column 9, line 11: “chemistry” should read --chemistry.--

Column 9, line 22: “DNA In” should read --DNA. In--

Column 9, line 26: "cell The" should read --cell. The--

Column 9, line 28: "virions" should read --virions.--

Column 9, line 29: "vivo or a" should read --vivo as a--

Column 9, line 39: "quarterly)) Since" should read --quarterly)). Since--

Column 9, line 42: "is mammalian cells Such" should read --in mammalian cells. Such--

Column 9, line 44: "operable" should read --operably--

Column 9, lines 44-45: "transla-tion In" should read --transla-tion. In--

Column 9, line 46: "promoter In" should read --promoter. In--

Column 9, line 60: "quarterly) The" should read --quarterly). The--

Column 9, line 62: "flavirridae" should read --flaviviridae--

Column 9, line 64: "(1990) The" should read --(1990). The--

Column 9, line 66: "scriptase From" should read --scriptase. From--

Column 10, line 2: "fragments Examples" should read --fragments. Examples--

Column 10, line 4: "(1991) Incorporation" should read --(1991). Incorporation--

Column 10, line 7: "engineering When" should read --engineering. When--

Column 10, line 8: "acid harboring" should read --acid molecule harboring--

Column 10, lines 9-10: "fragment Such" should read --fragment. Such--

Column 10, lines 12-13: "engineering Examples" should read --engineering. Examples--

Column 10, line 20: "obtained" should read --obtained.--

Column 10, line 35: "antigens A suitable" should read --antigens. A suitable--

Column 10, line 37: "acid In particular" should read --acid. In particular--

Column 10, line 40: "TU In" should read --TU. In--

Column 10, line 44: "functions When" should read --functions. When--

Column 10, line 49: "purposes" should read --purposes.--

Column 10, line 52: “particles These” should read --particles. These--

Column 10, line 56: “genone” should read --genome--

Column 10, line 60: “vaccine The” should read --vaccine. The--

Column 11, line 8: “limited b theory,” should read --limited by theory,--

Column 11, line 12: “mechanisms” should read --mechanisms.--

Column 11, line 16: “antigens The” should read --antigens. The--

Column 11, lines 18-19: “anti-gens” should read --anti-gens.--

Column 11, line 23: “science They” should read --science. They--

Column 11, line 25: “Sciences) They” should read --Sciences). They--

Column 11, line 38: “administered One” should read --administered. One--

Column 11, line 43: “*degue*,” should read --*dengue*,--

Column 11, line 56: “100%” should read --100%.--

Column 11, line 59: “subject A significant” should read --subject. A significant--

Column 11, line 62: “invention Without” should read --invention. Without--

Column 11, line 64: “material” should read --maternal--

Column 11, line 67: “way” should read --way.--

Column 12, line 32: “KpnI” should read --KpnI--

Column 12, line 36: “codone” should read --codon--

Column 12, line 43: “heater” should read --heated--

Column 12, line 58: “1989) RT-PCR” should read --1989). RT-PCR--

Column 12, line 59: “KpnI” should read --KpnI--

Column 12, line 61: “(pCDNA2,” should read --(pCDNA3,--

Column 13, line 7: “1990)” should read --1990).--

Column 13, line 13: “NcoI/KpnI” should read --NcoI/KpnI--

Column 13, line 15: “pC1” should read --pCI--

Column 13, line 16: “Kpn1 The” should read --Kpn1. The--

Column 13, line 18: “fragment FIG. 3” should read --fragment. FIG. 3--

Column 13, line 19: “PCIBamp” should read --pCIBamp.--

Column 13, line 49: “(IFA) The” should read --(IFA). The--

Column 13, line 51: “positive For” should read --positive. For--

Column 14, lines 1-2: “per mL 10 µg” should read --per mL. 10 µg--

Column 14, line 6: “flask 48 h” should read --flask. 48 h--

Column 14, line 9: “serum 10 µL” should read --serum. 10 µL--

Column 14, line 10: “20 min IFA was” should read --20 min. IFA was--

Column 14, line 14: “HIAF” should read --HIAF--

Column 14, line 18: “pCDEJE2-7, pCEJE, or pRCJE” should read --pCDJE2-7, pCEJE, pREJE, or pRCJE--

Column 14, line 44: “sequence Following” should read --sequence. Following--

Column 14, line 47: “Table 1) This” should read --Table 1). This--

Column 14, line 51: “used Vectors” should read --used. Vectors--

Column 14, line 53: “analysis” should read --analysis.--

Column 14, line 61: “anitgen-positive” should read --antigen-positive--

Column 14, line 65: “pC1Bamp” should read --pCIBamp--

Column 14, line 65: “pC1BJES14” should read --pCIBJES14--

Column 15, line 15: “(negative control). pCDJE2-7.” should read --(negative control), pCDJE2-7,--

Column 15, line 16: “pC1BJES14, pCEJEm pREJE, or pRCJE, Cells” should read --pCIBJES14, pCEJE, pREJE. Cells--

Column 15, line 18: “cells The” should read --cells. The--

Column 15, line 28: “mg. mL,” should read --mg/mL,--

Column 15, line 29: "Neomycin-resistance" should read --Neomycin-resistant--

Column 15, line 31: "medium Expression" should read --medium. Expression--

Column 15, line 35: "neomycin" should read --neomycin.--

Column 15, line 42: "(1983)) *JEV*" should read --(1983)). *JEV*--

Column 15, line 64: "1-" should read --1+--

Column 16, line 33: "HIAF" should read --HIAF--

Column 16, line 49: "days Culture" should read --days. Culture--

Column 16, line 54: "(TN buffer)) The" should read --(TN buffer)). The--

Column 16, line 57: "medium The" should read --medium. The--

Column 16, line 67: "TN This" should read --TN. This--

Column 17, line 8: "buffer Antigen-capture" should read --buffer. Antigen-capture--

Column 17, line 14: "gradient" should read --gradient.--

Column 17, line 15: "particles Gradient" should read --particles. Gradient--

Column 17, line 19: "(1970)) Proteins" should read --(1970)). Proteins--

Column 17, lines 28-29: "serum Pro-teins" should read --serum. Pro-teins--

Column 17, line 31: "respectively" should read --respectively.--

Column 17, line 44: "seeded PEG-precipitated" should read --seeded. PEG-precipitated--

Column 17, line 46: "0 7 mL" should read --0.7 mL--

Column 17, line 47: "gradient Triton" should read --gradient. Triton--

Column 18, line 1: "(FIG. 5) Antigen" should read --(FIG. 5). Antigen--

Column 18, line 3: "particles Treatment" should read --particles. Treatment--

Column 18, line 7: "molecules A similar" should read --molecules. A similar--

Column 18, line 8: "714-720)" should read --714-720).--

Column 18, line 11: "treatment" should read --treatment.--

Column 18, line 17: "to be 6.6" should read --to be 6.6.--

Column 18, line 23: "JCR" should read --ICR--

Column 18, line 34: "JE-VAX Mice" should read --JE-VAX. Mice--

Column 18, lines 36-37: "imunosorbent" should read --immunosorbent--

Column 18, line 40: "(1979))" should read --(1979)).--

Column 18, line 43: "(Table 3) The" should read --(Table 3). The--

Column 18, line 51: "nay" should read --any--

Column 18, line 54: "vaccine" should read --vaccine.--

Column 18, line 58: "JE-VEX" should read --JE-VAX--

Column 19, line 3: "JE-VEX" should read --JE-VAX--

Column 19, line 12: "vaccine Sera" should read --vaccine. Sera--

Column 19, line 23: "PCIBJES14" should read --pCIBJES14--

Column 19, line 30: "1.1600" should read --1:1600--

Column 19, line 31: "Table 4" should read --Table 4.--

Column 19, line 33: "1 1600" should read --1:1600--

Column 19, line 34: "vaccination Administration" should read --vaccination. Administration--

Column 19, line 46: "animals" should read --animals.--

Column 19, line 57: "pC1BJES14" should read --pCIBJES14--

Column 19, line 67: "3 weeks 100%" should read --3 weeks. 100%--

Column 20, line 16: "(Table 5) In" should read --(Table 5). In--

Column 20, line 19: "days These" should read --days. These--

Column 20, line 21: "mice This" should read --mice. This--

Column 20, line 50: "vaccination Pups" should read --vaccination. Pups--

Column 20, line 53: "6) The" should read --6). The--



- Column 20, line 55: "1.80" should read --1:80--
- Column 20, line 57: "(6) Partial" should read --(6). Partial--
- Column 20, line 59: "1.20 and 1.40," should read --1:20 and 1:40,--
- Column 20, line 61: "mother As" should read --mother. As--
- Column 20, line 62: "rates None" should read --rates. None--
- Column 20, line 67: "pups" should read --pups.--
- Column 21, line 20: "2. 100 µg" should read --2 100 µg--
- Column 21, line 21: "DNA. or subcutaneously with two. 1/5 human dose of JE-VAX vaccine Sera" should read --DNA or subcutaneously with two 1/5 human dose of JE-VAX vaccine. Sera--
- Column 21, line 23: "non-immune male" should read --non-immune male.--
- Column 21, line 24: "No Survivors total for" should read --No. Survivors/total--
- Column 21, line 36: "QIAAM" should read --QIAAMP--
- Column 21, lines 42-43: "inserted with the" should read --inserted into the--
- Column 21, line 54: "control As" should read --control. As--
- Column 22, line 3: "proteins Epitope" should read --proteins. Epitope--
- Column 22, line 6: "cells A" should read --cells. A--
- Column 22, line 7: "JCR" should read --ICR--
- Column 22, line 8: "servoconverted" should read --seroconverted--
- Column 22, line 10: "water" should read --water.--
- Column 22, line 16: "antigens" should read --antigens.--
- Column 22, line 29: "procedure A" should read --procedure. A--
- Column 22, line 46: "genes The" should read --genes. The--
- Column 22, line 49: "intervals At" should read --intervals. At--
- Column 22, line 52: "virus Levels" should read --virus. Levels--
- Column 22, line 54: "day Passive" should read --day. Passive--

Column 29, line 28: "1virus" should read --1 virus--

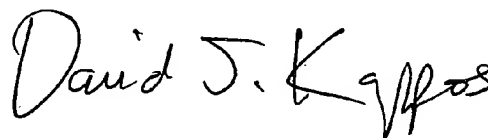
Column 29, line 30: "*St. Lous*" should read --*St. Louis*--

Column 29, lines 49-50: "*St. Lous*" should read --*St. Louis*--

Column 30, line 28: "*St. Lous*" should read --*St. Louis*--

Signed and Sealed this

Nineteenth Day of January, 2010

A handwritten signature in black ink that reads "David J. Kappos". The signature is written in a cursive, flowing style with a large initial 'D' and a stylized 'K'.

David J. Kappos  
Director of the United States Patent and Trademark Office